

EAST Search History

EAST Search History (Prior Art)

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|--------|--|--|------------------|---------|---------------------|
| S1 | 145 | diamond with tool with concave | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S2 | 57340 | song.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S3 | 190956 | park.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S4 | 432338 | kim.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S5 | 454815 | lee.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S6 | 3562 | cheong.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S7 | 1785 | jee.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:26 |
| S8 | 11 | (S2 S3 S4 S5 S6 S7) and S1 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:27 |
| S9 | 1 | (diamond with tool with concave with shank).clm. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/16 15:28 |
| S10 | 18 | diamond near4 tool same abrasive near (particle or grain) same shank | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:05 |
| S11 | 1436 | (diamond near tool).ab. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:15 |

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|-----|-------|--|--|----|----|---------------------|
| S12 | 557 | 125/15.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:16 |
| S13 | 777 | 451/51.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:16 |
| S14 | 1034 | 451/540.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:16 |
| S15 | 11635 | "51".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:17 |
| S16 | 41 | (S12 S14 S15) and S11 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/01/21 14:17 |
| S17 | 50 | (US-20070151554-\$ or US-20050249560-\$ or US- 20020182018-\$ or US- 20060120811-\$).did. or (US-4496372-\$ or US- 4244432-\$ or US- 4351401-\$ or US- 4457765-\$ or US- 4534773-\$ or US- 4556403-\$ or US- 4778730-\$ or US- 4793828-\$ or US- 5580196-\$ or US- 7128066-\$ or US- 6959771-\$ or US- 4539778-\$ or US- 5011508-\$ or US- 5388374-\$ or US- 5501630-\$ or US- 4258505-\$ or US- 4268564-\$ or US- 4330027-\$ or US- 4350497-\$ or US- 4355489-\$ or US- 4382350-\$ or US- 4486200-\$ or US- 4536195-\$ or US- 4596640-\$ or US- 4787942-\$ or US- 4832707-\$).did. or (US- 4918874-\$ or US- 4968326-\$ or US- 4971602-\$ or US- 5008513-\$ or US- | US-PGPUB; USPAT | OR | ON | 2009/01/23 08:19 |

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|-----|--------|---|--|----|----|---------------------|
| | | 5016498-\$ or US-5025871-\$ or US-5178643-\$ or US-5210944-\$ or US-5376410-\$ or US-5492548-\$ or US-5773120-\$ or US-6004362-\$ or US-6030277-\$ or US-6113474-\$ or US-6180245-\$ or US-5358026-\$ or US-5447465-\$ or US-4869788-\$ or US-3872594-\$ or US-4951423-\$).did. | | | | |
| S18 | 62769 | song.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S19 | 201144 | park.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S20 | 455269 | kim.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S21 | 476517 | lee.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S22 | 3744 | cheong.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S23 | 1964 | jee.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S24 | 41 | (S18 S19 S20 S21 S22 S23) and (diamond same tool).clm. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:06 |
| S25 | 5 | (S18 S19 S20 S21 S22 S23) and (diamond same tool).clm. and shank.clm. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:07 |
| S26 | 561 | 125/ 15.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:32 |

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| S27 | 779 | 451/51.cds. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:32 |
| S28 | 1039 | 451/540.cds. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:32 |
| S29 | 11732 | "51".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:32 |
| S30 | 8 | (S26 S27 S28 S29) and (diamond near tool).ab. and (concave or slot or aperture) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:32 |
| S31 | 50 | (US-20070151554-\$ or US-20050249560-\$ or US- 20020182018-\$ or US- 20060120811-\$).did. or (US-4496372-\$ or US- 4244432-\$ or US- 4351401-\$ or US- 4457765-\$ or US- 4534773-\$ or US- 4556403-\$ or US- 4778730-\$ or US- 4793828-\$ or US- 5580196-\$ or US- 7128066-\$ or US- 6959771-\$ or US- 4539778-\$ or US- 5011508-\$ or US- 5388374-\$ or US- 5501630-\$ or US- 4258505-\$ or US- 4268564-\$ or US- 4330027-\$ or US- 4350497-\$ or US- 4355489-\$ or US- 4382350-\$ or US- 4486200-\$ or US- 4536195-\$ or US- 4596640-\$ or US- 4787942-\$ or US- 4832707-\$).did. or (US- 4918874-\$ or US- 4968326-\$ or US- 4971602-\$ or US- 5008513-\$ or US- 5016498-\$ or US- 5025871-\$ or US- 5178643-\$ or US- 5210944-\$ or US- 5376410-\$ or US- | US-PGPUB; USPAT | OR | ON | 2009/05/07 11:38 |

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|-----|-------|--|--|----|-----|---------------------|
| | | 5492548-\$ or US-5773120-\$ or US-6004362-\$ or US-6030277-\$ or US-6113474-\$ or US-6180245-\$ or US-5358026-\$ or US-5447465-\$ or US-4869788-\$ or US-3872594-\$ or US-4951423-\$).did. | | | | |
| S32 | 2 | S31 and (abrasive near tool).ab. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 11:39 |
| S33 | 2 | ("6039641").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2009/05/07 11:39 |
| S34 | 28 | ("4669522" "4780274" "5000273" "5518443").PN. OR ("6039641").URFN. | US-PGPUB; USPAT; USOCR | OR | ON | 2009/05/07 11:39 |
| S35 | 95 | (hole or opening or aperture) with (swarf or coolant or cool) with (diamond or superabrasive) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 13:56 |
| S36 | 46 | groove with (swarf or coolant or cool) with (diamond or superabrasive) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 13:56 |
| S37 | 5 | ((("4091792") or ("4624237"))).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2009/05/07 13:57 |
| S38 | 16242 | diamond near (tool or saw or grinding or cutting or abrading) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 14:26 |
| S39 | 271 | (diamond near (tool or saw or grinding or cutting or abrading)).ab. and (diamond or abrasive or superabrasive) same (braz\$5 or bond\$5) same layer | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 14:27 |

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|-----|--------|--|--|----|----|---------------------|
| S40 | 3 | (diamond near (tool or saw or grinding or cutting or abrading)).ab. and (diamond or abrasive or superabrasive) same (braz\$5 or bond\$5) same layer and concave near portion | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 14:27 |
| S41 | 186 | protrud\$5 with (diamond or superabrasive) near3 particle | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 14:53 |
| S42 | 72 | protrud\$5 with (diamond or superabrasive) near3 particle and tool near4 (cutting or diamond or grinding or abrading) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:04 |
| S43 | 65 | protrud\$5 with (diamond or superabrasive) near3 particle and (opening or slot or aperture or concave) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:06 |
| S44 | 12 | protrud\$5 with (diamond or superabrasive) near3 particle same (opening or slot or aperture or concave) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:17 |
| S45 | 103755 | "451".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:25 |
| S46 | 11732 | "51".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:25 |
| S47 | 1934 | (S45 S46) and (opening or slot or concave or aperture) same (diamond or superabrasive) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:27 |
| S48 | 1593 | (S45 S46) and (opening or slot or concave or aperture) same (diamond or superabrasive) same (saw or wheel or tool or grinding or cutting) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:27 |

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| S49 | 318 | (S45 S46) and (opening or slot or concave or aperture) same (diamond or superabrasive) same (saw or wheel or tool or grinding or cutting) same (braz\$5 or bond\$5) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:28 |
| S50 | 0 | (S45 S46) and (opening or slot or concave or aperture) with "into" with (diamond or superabrasive) same (saw or wheel or tool or grinding or cutting) same (braz\$5 or bond\$5) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:28 |
| S51 | 0 | (S45 S46) and (opening or slot or concave or aperture) with "into" with (diamond or superabrasive) same (braz\$5 or bond\$5) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 15:28 |
| S52 | 12 | protruding near height with abrasive | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 16:00 |
| S53 | 2 | ("6039641").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2009/05/07 16:06 |
| S54 | 4 | ("4669522" "4780274" "5000273" "5518443").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2009/05/07 16:06 |
| S55 | 1 | S54 and protrud\$5 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 16:10 |
| S56 | 46 | diamond adj tool same protrud\$5 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 16:13 |
| S57 | 88 | protrud\$5 near\$ height near\$ (abrasive or diamond) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 16:19 |
| S58 | 6 | protrud\$5 near\$ height near\$ (abrasive or diamond) with control | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/07 16:19 |

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| S59 | 2 | ("20030132119").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2009/05/07 16:22 |
| S60 | 98 | (abrasive or polishing or planarizing or abrading or lapping).ti. and (protrud\$4 with (diamond or particle or abrasives)).dm. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 09:37 |
| S61 | 4304 | (abrasive near2 (tool or article)).ti. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 09:43 |
| S62 | 91786 | (abrasive near2 (tool or article)).ti. (support or substrate or shank) same (abrasives or diamond or superabrasive) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 09:44 |
| S63 | 550 | (abrasive near2 (tool or article)).ti. and (support or substrate or shank) same (abrasives or diamond or superabrasive) same particle | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 09:44 |
| S64 | 533 | (abrasive near2 (tool or article)).ti. and (support or substrate or shank) same (abrasives or diamond or superabrasive) with particle | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 09:44 |
| S65 | 260 | (abrasive near2 (tool or article)).ti. and (support or substrate or shank) same (abrasives or diamond or superabrasive) with particle same layer | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 09:44 |
| S66 | 6 | ((("5611326") or ("5997597") or ("6042463"))).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2009/05/08 09:45 |
| S67 | 5 | abrasive near3 particle with protrusion with (effective or exhibit or impart or benefit or better or enhanced or enhance or prefer) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/05/08 10:07 |

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|-----|-------|--|--|----|-----|---------------------|
| S68 | 3 | ("3957593" "4381227" "5389228").PN. | US-PGPUB; USPAT; USOCR | OR | ON | 2009/05/08 10:29 |
| S69 | 4 | ("5989405").URFN. | USPAT | OR | ON | 2009/05/08 10:29 |
| S70 | 2 | ("20070151554").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2009/12/01 09:26 |
| S71 | 1 | S70 and groove | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 09:26 |
| S72 | 569 | 125/15.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 10:38 |
| S73 | 1045 | 451/540.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 10:38 |
| S74 | 11869 | "51".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 10:38 |
| S75 | 569 | 125/15.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 11:49 |
| S76 | 1045 | 451/540.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 11:49 |
| S77 | 11869 | "51".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 11:49 |
| S78 | 47 | (S75 S76 S77) and diamond near3 tool same shank | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 11:49 |
| S79 | 20 | (S75 S76 S77) and diamond near3 tool same shank and hole | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2009/12/01 11:53 |
| S80 | 2 | ("20070151554").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2011/05/17 14:26 |

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| S81 | 0 | S80 and topmost with shank | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:28 |
| S82 | 0 | S80 and topmost | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:28 |
| S83 | 2 | S80 and surface with shank | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:28 |
| S84 | 3941 | (abrasive or polishing or planarizing or lapping or abrading) near2 (tool or cutting or element or article) and (gap or groove or concave or dimple) same (particle or particulate or grain or diamond or CBN) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:50 |
| S85 | 380 | (abrasive or polishing or planarizing or lapping or abrading) near2 (tool or cutting or element or article) and (gap or groove or concave or dimple) with (shank or substrate) same (particle or particulate or grain or diamond or CBN) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:51 |
| S86 | 1072 | 451/540.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:51 |
| S87 | 12303 | "51".clas. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:51 |
| S88 | 49 | (abrasive or polishing or planarizing or lapping or abrading) near2 (tool or cutting or element or article) and (gap or groove or concave or dimple) with (shank or substrate) same (particle or particulate or grain or diamond or CBN) and (S86 or S87) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/05/17 14:51 |

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|-----|--------|--|--|----|----|---------------------|
| S89 | 104309 | song.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S90 | 264742 | park.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S91 | 597982 | kim.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S92 | 620012 | lee.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S93 | 5083 | cheong.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S94 | 3089 | jee.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S95 | 1 | (S89 S90 S91 S92 S93 S94) and (diamond near3 tool and concave and abrasive and shape).clm. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:52 |
| S96 | 2369 | 51/295.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:53 |
| S97 | 2013 | 51/293.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:53 |
| S98 | 69 | (S96 S97 "L12" "L14" "L15") and (tool or insert) and (shank or body) and diamond and concave | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2011/08/31 16:56 |

8/31/2011 4:56:38 PM

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